



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,936	02/25/2004	Satoru Motohashi	03500.018006	9545

5514 7590 04/05/2006

FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

BEATTY, ROBERT B

ART UNIT	PAPER NUMBER
----------	--------------

2852

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/784,936

Applicant(s)

MOTOHASHI ET AL.

Examiner

Robert Beatty

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,7 and 18 is/are rejected.
- 7) ☒ Claim(s) 2-4,6,8-12,19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. Applicant's election with traverse of Group I in the reply filed on 1/6/2006 is acknowledged. The traversal is on the ground(s) that there would be a nominal burden on the examiner to search and examiner both Groups I and II. This is not found persuasive because Group II would include a search into subclasses not pertinent to the examination of Group I.

The requirement is still deemed proper and is therefore made FINAL.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. Figures 8-12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. Claims 9-10 are objected to because of the following informalities:

In claim 9, line 4, some of the equation seems to be missing and on line 6, "da" is not defined. Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,5,7,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi et al. in view of Yamazaki et al.

Adachi et al. teach an image forming apparatus comprising a rotatable latent image bearing member 1, a contact charging member 2 which is provided with an AC+DC bias to charge the image bearing member (col.9, lines 62-67), and a cleaning means 7a contacting the image bearing member to scrape residual toner off the image bearing member. As disclosed in col.12, lines 1- 53, during a pre-rotation period, the charging member is applied with six different first AC voltages and an AC current detecting circuit 14 will measure the AC current and send the results to a control circuit 13. The control circuit will perform a calculation to select an optimum AC voltage to be applied during an image forming operation in an image forming area. Specifically, Adachi et al. teach everything claimed except applying a second AC voltage during a time period after selecting the optimum AC

voltage for image formation and before the start of image formation, which has a higher peak to peak AC voltage than the first AC voltages.

Yamazaki et al. teach an image forming apparatus comprising an image bearing member 1, a charging member 2 for applying an AC+DC bias to charge the image bearing member, a cleaning member 8, and a transfer roller 7. During an image forming operation, the image forming region is charged with a first AC+DC bias but during a non-image forming operation, such as during a pre-rotation, the charger is applied with a AC+DC voltage in which the AC peak-to-peak voltage is higher than during an image forming operation (see col.4, line 11 - col.5, line 8). Additionally, the transfer roller is applied with a voltage  $V_{neg}$  during the pre-rotation period (which is opposite in polarity from a normal image transfer operation bias). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Adachi et al. so that the charging member is also applied with a second AC voltage higher than a charging AC voltage during a pre-rotation period and/or the transfer roller is applied with a voltage during the pre-rotation in order to transfer contaminants to the image bearing member so as to be cleaned by the cleaning member.

6. Claims 2-4,6,8-12,19-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sunahara et al., Sakaizawa et al., Watanabe et al., Senba et al., and Ko all teach charging members with AC+DC biases.

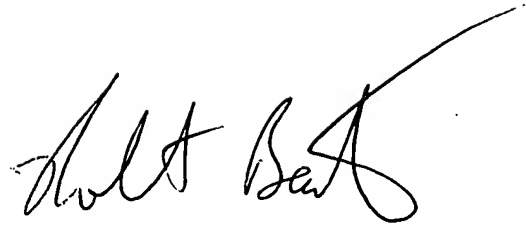
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Beatty whose telephone number is (571) 272-2130. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/784,936  
Art Unit: 2852

Page 6

A handwritten signature in black ink, appearing to read "Robert Beatty". The signature is stylized with a large, sweeping "R" and a long, horizontal stroke extending from the end.

Robert Beatty  
Primary Examiner  
Art Unit 2852

April 3, 2006